

PAT-NO: JP360261639A
DOCUMENT-IDENTIFIER: JP 60261639 A
TITLE: SELF-CURING BINDER COMPOSITION FOR
CASTING MOLD
PUBN-DATE: December 24, 1985

INVENTOR-INFORMATION:

NAME
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ASSIGNEE-INFORMATION:

| | |
|--------------------------|---------|
| NAME | COUNTRY |
| DAINIPPON INK & CHEM INC | N/A |

APPL-NO: JP59115597

APPL-DATE: June 7, 1984

INT-CL (IPC): B22C001/22, C08G008/08

US-CL-CURRENT: 528/155

ABSTRACT:

PURPOSE: To provide the titled compsn. having non-volatile matter and viscosity in an adequate range, improved strength and low odorousness by incorporating the initial condensate of a bis-phenol F-modified acid-curing resin obtd. by the reaction of phenol and formaldehyde into the compsn.

CONSTITUTION: Phenol and aldehyde are mixed at

1:1.15~1.65 molar ratio
and are brought into reaction with each other with an
alkali metal and alkaline
earth metal compd. as a catalyst. The initial condensate
of the bisphenol F
modified acid-curing type phenol aldehyde resin is formed
by using bisphenol F
at 3~15wt% by the weight of the initial condensate of
the formed resin
obtd. in the above-mentioned way. This condensate has
55~85% non-volatile
matter and 150 centipoise viscosity at 25°C. Such
initial condensate is
used as an essential component and an acidic curing agent,
etc. are added
thereto to prepare the self-curing binder compsn. for a
casting mold. The
compsn. has well balanced strength and low odorousness.

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DERWENT-ACC-NO: 1986-040193

DERWENT-WEEK: 198606

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TITLE: Self curing binder compsn. for
casting mould - comprising precondensate of acid
curing modified phenol!-aldehyde resin and bisphenol

PATENT-ASSIGNEE: DAINIPPON INK & CHEM KK[DNIN]

PRIORITY-DATA: 1984JP-0115597 (June 7, 1984)

PATENT-FAMILY:

| PUB-NO | PAGES | PUB-DATE | |
|---------------|-------|-------------------|-----|
| LANGUAGE | | MAIN-IPC | |
| JP 60261639 A | | December 24, 1985 | N/A |
| 004 | N/A | | |
| JP 89048103 B | | October 18, 1989 | N/A |
| 000 | N/A | | |

APPLICATION-DATA:

| PUB-NO | APPL-DATE | APPL-DESCRIPTOR | APPL-NO |
|----------------|-----------|-----------------|---------|
| JP 60261639A | | N/A | |
| 1984JP-0115597 | | June 7, 1984 | |

INT-CL (IPC): B22C001/22, C08G008/08

ABSTRACTED-PUB-NO: JP 60261639A

BASIC-ABSTRACT:

Compsn. comprises precondensates of acid-setting phenol aldehyde resin, 55-85 wt.% non-volatiles. The viscosity at 25 deg.C is under 150 centipoise. The precondensates are of modified bisphenol obtd. using alkali metal and/or alkaline earth metal cpds. as catalyst for the reaction, phenol cpd. and

aldehyde cpd. in the ratio 1:1.15 to 1.65, and 3-15 wt.%
bisphenol on a basis
of resin precondensate to be produced.

USE/ADVANTAGE - Compsn. has high initial strength, and also
high final strength
(after 24 hrs.), and excellent workability without
developing odour resulting
from free phenol.

In an example, 470 pts. phenol, 116 pts. bisphenol and
536 pts. 42% formalin
were charged into a flask, 23.5 pts. 48% KOH added as
catalyst, the temp.
raised to 80 deg.C over 1 hr., reaction allowed to take
place to a water
dilution capacity (water tolerance) of 500% at the same
temp., immediately
cooled, then neutralised to pH 6.5-7.0 using 70%
para-toluenesulphonic acid aq.
soln., and distd. to obtain bisphenol F modified
phenol-formaldehyde resin
precondensate soln. of NV 68.5%, and viscosity 110 cps.
The resin
precondensate had modifcn. amt. of bisphenol F of 10%,
water tolerance of
100% and free formaldehyde content of 0.3%.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: SELF CURE BIND COMPOSITION CAST MOULD COMPRISE
PRECONDENSATE ACID
CURE MODIFIED POLYPHENOL ALDEHYDE RESIN
BISPHENOL

DERWENT-CLASS: A81 M22 P53

CPI-CODES: A05-C03A; A12-A02; M22-A03;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0760U

POLYMER-MULTIPUNCH-CODES-AND-KEY-SERIALS:

Key Serials: 0004 0035 0040 0043 0046 0049 0052 0055 0058

0061 0064 0067 0231

1277 1355 1357 1369 3083 1496 1517 2020 2043 2064 2148 2152

2286 2301 2556 2629

2674 2676 2750

Multipunch Codes: 014 038 04- 06- 075 080 09& 09- 10& 10-
140 15& 17& 17- 18&
18- 180 19& 19- 213 214 215 220 222 231 262 293 335 341 344
346 473 48- 512 525
527 528 546 551 567 57& 623 629 632 681 689

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1986-017193

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